

<110> Sense Proteomic Limited
<120> PROTEIN ARRAYS AND USES THEREOF
<130> 27353-510 061
<140> PCT/IB2003/005258
<141> 2003-09-16
<150> US 60/410,815
<151> 2002-09-16
<150> PCT/GB02/05499
<151> 2002-12-05
<150> US 10/313,963
<151> 2002-12-05
<160> 63
<170> PatentIn version 3.2
<210> 1
<211> 27
<212> DNA
<213> Artificial
<220>
<223> Primer
<400> 1
gctgcacgct acccaccagg ccccctg 27

<210> 2
<211> 45
<212> DNA
<213> Artificial
<220>
<223> Primer
<400> 2
ttgcggccgc tcttctacta gcggggcaca gcacaaagct catag 45

<210> 3
<211> 50
<212> DNA
<213> Artificial
<220>
<223> Primer
<400> 3
tattctcact ggccattacg gccgtgcac gctaccacc aggccccctg 50

<210> 4
<211> 80
<212> DNA
<213> Artificial
<220>
<223> Primer
<400> 4
tattctcact ggccattacg gccgtggacc tgatgcaccg gcgccaacgc tgggctgcac 60

gctacccacc aggcccccctg

80

<210> 5
 <211> 107
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 5
 tattctcact ggccattacg gccatggctc tagaagcact ggtgcccctg gccgtgatag 60
 tggccatctt cctgctcctg gtggacctga tgcaccggcg ccaacgc 107

<210> 6
 <211> 27
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 6
 gcggggcaca gcacaaagct cataggg 27

<210> 7
 <211> 28
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 7
 ctccctcctg gcccactcc tctcccaa 28

<210> 8
 <211> 46
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 8
 ttgcgggcg ctcttctatc agacaggaat gaagcacagc ctggta 46

<210> 9
 <211> 27
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 9
 cttggaattc cagggccac acctctg 27

<210> 10
 <211> 48
 <212> DNA
 <213> Artificial

<220>

<223> Primer

<400> 10

tttgcggccg ctcttctatc aggctccact tacgggtgcca tcccttga 48

<210> 11

<211> 83

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 11

tattctcact ggccattacg gcctatggaa cccattcaca tggacttttt aagaagcttg 60

gaattccagg gccacacct ctg 83

<210> 12

<211> 50

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 12

tattctcact ggccattacg gcccttggaa ttccagggcc cacacctctg 50

<210> 13

<211> 87

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 13

tattctcact ggccattacg gcccttctctg gctgtcagcc tgggtgctcct ctatctatat 60

ggaaccatt cacatggact ttttagg 87

<210> 14

<211> 28

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 14

ggctccactt acggtgccat cccttgac 28

<210> 15

<211> 75

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 15

tattctcact ggccattacg gccagacaga gctctgggag aggaaaactc cctcctggcc 60

ccactcctct ccag 75

<210> 16
 <211> 51
 <212> DNA
 <213> Artificial

 <220>
 <223> Primer

 <400> 16
 tattctcact ggccattacg gccctccctc ctggcccccac tcctctccca g 51

 <210> 17
 <211> 29
 <212> DNA
 <213> Artificial

 <220>
 <223> Primer

 <400> 17
 gacaggaatg aagcacagct ggtagaagg 29

 <210> 18
 <211> 57
 <212> DNA
 <213> Artificial

 <220>
 <223> Primer

 <400> 18
 ctctcatgtt tgcttctcct ttcactctgg agacagcgct ctgggagagg aaaactc 57

 <210> 19
 <211> 54
 <212> DNA
 <213> Artificial

 <220>
 <223> Primer

 <400> 19
 acagagcaca aggaccacaa gagaatcggc cgtaagtgcc atagttaatt tctc 54

 <210> 20
 <211> 33
 <212> DNA
 <213> Artificial

 <220>
 <223> Primer

 <400> 20
 ggatcgacat atgggagact cccacgtgga cac 33

 <210> 21
 <211> 34
 <212> DNA
 <213> Artificial

 <220>
 <223> Primer

 <400> 21
 ccgataagct tatcagctcc acacgtccag ggag 34

<210> 22
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 22
tgtgttcaag aggaagcccg ctg 23

<210> 23
<211> 25
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 23
gtcctcaatg ctgctcttcc ccac 25

<210> 24
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 24
cttgaccttc tccccaccag cctg 24

<210> 25
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 25
gtatctctgg acctcgtgca ccac 24

<210> 26
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 26
ctgaccttct ccccaccagc ctg 23

<210> 27
<211> 22
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 27

tgtatctctg gacctcgtgc ac	22
<210> 28	
<211> 20	
<212> DNA	
<213> Artificial	
<220>	
<223> Primer	
<400> 28	
gcttctcccc accagcctgc	20
<210> 29	
<211> 24	
<212> DNA	
<213> Artificial	
<220>	
<223> Primer	
<400> 29	
tcaatgtatc tctggacctc gtgc	24
<210> 30	
<211> 23	
<212> DNA	
<213> Artificial	
<220>	
<223> Primer	
<400> 30	
gcattgacct tctccccacc agc	23
<210> 31	
<211> 22	
<212> DNA	
<213> Artificial	
<220>	
<223> Primer	
<400> 31	
caccacgtgc tccaggtctc ta	22
<210> 32	
<211> 81	
<212> DNA	
<213> Artificial	
<220>	
<223> Primer	
<400> 32	
tattctcact ggccattacg gccgtggacc tgatgcaccg gcgccaacgc tgggctgcac	60
gctactcacc aggccccctg c	81
<210> 33	
<211> 52	
<212> DNA	
<213> Artificial	
<220>	

<223> Primer
 <400> 33
 gcggggcaca gcacaaagct cataggggga tgggctcacc aggaaagcaa ag 52
 <210> 34
 <211> 21
 <212> DNA
 <213> Artificial
 <220>
 <223> Primer
 <400> 34
 tccagatcct gggtttcggg c 21
 <210> 35
 <211> 22
 <212> DNA
 <213> Artificial
 <220>
 <223> Primer
 <400> 35
 tgatgggcac aggcgggcgg tc 22
 <210> 36
 <211> 21
 <212> DNA
 <213> Artificial
 <220>
 <223> Primer
 <400> 36
 gccaaaggga accctgagag c 21
 <210> 37
 <211> 21
 <212> DNA
 <213> Artificial
 <220>
 <223> Primer
 <400> 37
 ctccatctct gccaggaagg c 21
 <210> 38
 <211> 24
 <212> DNA
 <213> Artificial
 <220>
 <223> Primer
 <400> 38
 ccaataacag tctttccatt cctc 24
 <210> 39
 <211> 24
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 39
 gagaaagaat ggatccaaaa aatc 24

<210> 40
 <211> 23
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 40
 cgaggtttgc tctcatgacc atg 23

<210> 41
 <211> 24
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 41
 tgccaatgca gtttctgggt ccac 24

<210> 42
 <211> 22
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 42
 gtctctatag ctgaggatga ag 22

<210> 43
 <211> 23
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 43
 ggcacttttc ataaatccca ctg 23

<210> 44
 <211> 23
 <212> DNA
 <213> Artificial

<220>
 <223> Primer

<400> 44
 gattctttct ctcaataaca gtc 23

<210> 45
 <211> 23
 <212> DNA
 <213> Artificial


```

<220>
<223> Primer

<400> 45
gatccaaaaa atcaaattctt aaa 23

<210> 46
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 46
aggaagcaga gacaggcaag c 21

<210> 47
<211> 22
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 47
gcctcagatt tctcaccaac ac 22

<210> 48
<211> 5024
<212> DNA
<213> Artificial

<220>
<223> Plasmid

<400> 48
ctcgagaaat cataaaaaat ttatttgctt tgtgagcggg taacaattat aatagattca 60
attgtgagcg gataacaatt tcacacagaa ttcattaaag aggagaaatt aactatggca 120
cttagtgggg tccgcatgcg agctcggtag cccgggggtg gcagcgggtt tggcgagcga 180
gcggaaatca gtggtcacat cgtacgttcc ccgatgggtg gtactttcta ccgcacccca 240
agcccggacg caaaagcgtt catcgaagtg ggtcagaaaag tcaacgtggg cgataccctg 300
tgcacgtgtg aagccatgaa aatgatgaac cagatcgaag cggacaaatc cggtagcgtg 360
aaagcaattc tggtcgaaaag tggacaaccg gtagaatttg acgagccgct ggtcgtcatc 420
gaggggtggc gcggttctgg ccaccatcac catcaccata agcttaatta gctgagcttg 480
gactcctggt gatagatcca gtaatgacct cagaactcca tctggatttg ttcagaacgc 540
tcggttgccg ccgggcggtt ttatttggtg agaatccaag ctagcttggc gagattttca 600
ggagctaagg aagctaaaat ggagaaaaaa atcactggat ataccaccgt tgatatatcc 660
caatggcatc gtaaagaaca ttttgaggca tttcagtcag ttgctcaatg tacctataac 720
cagaccgttc agctggatat tacggccttt ttaaagaccg taaagaaaaa taagcacaag 780
ttttatccgg cttttattca cattcttgcc cgcctgatga atgctcatcc ggaatttcgt 840
atggcaatga aagacggtga gctggtgata tgggatagtg ttcacccttg ttacaccgtt 900

```

ttccatgagc	aaactgaaac	gttttcatcg	ctctggagtg	aataccacga	cgatttccgg	960
cagtttctac	acatatattc	gcaagatgtg	gcgtgttacg	gtgaaaacct	ggcctatttc	1020
cctaaagggt	ttattgagaa	tatgtttttc	gtctcagcca	atccctgggt	gagtttcacc	1080
agttttgatt	taaacgtggc	caatatggac	aacttcttcg	ccccgtttt	caccatgggc	1140
aaatattata	cgcaaggcga	caagggtgctg	atgccgctgg	cgattcaggt	tcatcatgcc	1200
gtttgtgatg	gcttccatgt	cggcagaatg	cttaatgaat	tacaacagta	ctgcgatgag	1260
tggcagggcg	gggcgtaatt	tttttaaggc	agttattggt	gcccttaaac	gcctggggta	1320
atgactctct	agcttgaggc	atcaaataaa	acgaaaggct	cagtcgaaag	actgggcctt	1380
tcgttttate	tgttgtttgt	cggtgaacgc	tctcctgagt	aggacaaatc	cgccctctag	1440
attacgtgca	gtcgatgata	agctgtcaaa	catgagaatt	gtgcctaata	agtgaagctaa	1500
cttacattaa	ttgcgttgcg	ctcactgccc	gctttccagt	cgggaaacct	gtcgtgccag	1560
ctgcattaat	gaatcggcca	acgcgcgggg	agaggcggtt	tgcgtatttg	gcgccagggt	1620
ggtttttctt	ttcaccagtg	agacgggcaa	cagctgattg	cccttcaccg	cctggccctg	1680
agagagttgc	agcaagcggt	ccacgctggt	ttgccccagc	aggcgaaaat	cctgtttgat	1740
ggtggttaac	ggcgggatat	aacatgagct	gtcttcggta	tcgtcgtatc	ccactaccga	1800
gatatccgca	ccaacgcgca	gcccggactc	ggtaatggcg	cgcatcgcg	ccagcgccat	1860
ctgatcgttg	gcaaccagca	tcgcagtggt	aacgatgccc	tcattcagca	tttgcaggt	1920
ttgttgaaaa	ccggacatgg	cactccagtc	gccttcccgt	tccgctatcg	gctgaatttg	1980
attgcgagtg	agatatattat	gccagccagc	cagacgcaga	cgcgccgaga	cagaacttaa	2040
tgggcccgt	aacagcgcg	tttgctggtg	acccaatg	accagatgct	ccacgcccag	2100
tcgcgtaccg	tcttcatggg	agaaaataat	actgttgatg	ggtgtctggt	cagagacatc	2160
aagaaataac	gccggaacat	tagtgagggc	agcttccaca	gcaatggcat	cctggtcatc	2220
cagcggatag	ttaatgatca	gcccactgac	gcgttgcgcg	agaagattgt	gcaccgcccgc	2280
tttacaggct	tcgacgccgc	ttcgttctac	catcgacacc	accacgctgg	caccagttg	2340
atcggcgcg	gatttaatcg	ccgcgacaat	ttgcgacggc	gcgtgcaggg	ccagactgga	2400
ggtggcaacg	ccaatcagca	acgactgttt	gcccgccagt	tgttgtgcca	cgcggttggg	2460
aatgtaattc	agctccgcca	tcgccgcttc	cactttttcc	cgcgttttcg	cagaaacgtg	2520
gctggcctgg	ttcaccacgc	gggaaacggt	ctgataagag	acaccggcat	actctgcgac	2580
atcgtataac	gttactggtt	tcacattcac	caccctgaat	tgactctctt	ccgggcgcta	2640
tcatgccata	ccgcgaaagg	ttttgcacca	ttcgatggtg	tcggaatttc	gggcagcggt	2700
gggtcctggc	cacgggtg	catgatctag	agctgcctcg	cgcgtttcgg	tgatgacggt	2760
gaaaacctct	gacacatgca	gctcccggag	acggtcacag	cttgtctgta	agcggatgcc	2820
gggagcagac	aagcccgtca	gggcgcgtca	gcgggtgttg	gcgggtgtcg	gggcgcagcc	2880
atgaccagct	cacgtagcga	tagcggagtg	tatactggct	taactatg	gcacagagc	2940
agattgtact	gagagtgcac	catatgcggt	gtgaaatacc	gcacagatgc	gtaaggagaa	3000
aataccgcat	caggcgctct	tccgcttcct	cgctcactga	ctcgctgcgc	tcggtcgttc	3060

Sense 27353-510-061-SequenceListing.txt

```

ggctgcgggcg agcgggtatca gctcactcaa aggcggtaat acggttatcc acagaatcag 3120
gggataacgc aggaagaagac atgtgagcaa aaggccagca aaaggccagg aaccgtaaaa 3180
aggccgcggtt gctggcggttt ttccataggc tccgcccccc tgacgagcat cacaaaaatc 3240
gacgctcaag tcagaggtgg cgaaaccgga caggactata aagataccag gcgtttcccc 3300
ctggaagctc cctcgtgcgc tctcctgttc cgaccctgcc gcttaccgga tacctgtccg 3360
cctttctccc ttcggaagc gtggcgcttt ctcatagctc acgctgtagg tatctcagtt 3420
cggtgtaggt cgttcgtcc aagctgggct gtgtgcacga acccccgtt cagcccgacc 3480
gctgcgctt atccggtaac tatcgtcttg agtccaaccc ggtaagacac gacttatcgc 3540
cactggcagc agccactggt aacaggatta gcagagcgag gtatgtaggc ggtgctacag 3600
agttcttgaa gtggtggcct aactacggct aactagaag gacagtattt ggtatctgcg 3660
ctctgctgaa gccagttacc ttcggaaaaa gagttggtag ctcttgatcc ggcaaaaaa 3720
ccaccgctgg tagcgggtgg ttttttgttt gcaagcagca gattacgcgc agaaaaaaag 3780
gatctcaaga agatcctttg atcttttcta cggggtctga cgctcagtgg aacgaaaact 3840
cacgttaagg gattttggtc atgagattat caaaaaggat cttcacctag atccttttaa 3900
attaaaaatg aagtttttaa tcaatctaaa gtatatatga gtaaacttgg tctgacagtt 3960
accaatgctt aatcagtgag gcacctatct cagcgatctg tctatttcgt tcatccatag 4020
ttgcctgact ccccgctcgt tagataacta cgatacggga gggcttacca tctggcccca 4080
gtgctgcaat gataccgcga gaccacgct caccggctcc agatttatca gcaataaacc 4140
agccagccgg aagggccgag cgcagaagtg gtcctgcaac tttatccgcc tccatccagt 4200
ctattaattg ttgccgggaa gctagagtaa gtagttcgcc agttaatagt ttgcgcaacg 4260
ttgttgccat tgctacaggc atcgtggtgt cacgctcgtc gtttggtatg gcttcattca 4320
gctccggttc ccaacgatca aggcgagtta catgatcccc catgttggtg aaaaaagcgg 4380
ttagctcctt cggtcctccg atcgttggtc gaagtaagtt ggccgcagtg ttatcactca 4440
tggttatggc agcactgcat aattctctta ctgtcatgcc atccgtaaga tgcttttctg 4500
tgactggtga gtactcaacc aagtcattct gagaatagt tatgcggcga ccgagttgct 4560
cttgcccggc gtcaatacgg gataataccg cgccacatag cagaacttta aaagtgctca 4620
tcattgaaa acgttcttcg gggcgaaaac tctcaaggat cttaccgctg ttgagatcca 4680
gttcgatgta acccactcgt gcacccaact gatcttcagc atcttttact ttcaccagcg 4740
tttctgggtg agcaaaaaa ggaaggcaaa atgccgcaaa aaagggaata agggcgacac 4800
ggaaatgttg aatactcata ctcttccttt ttcaatatta ttgaagcatt tatcagggtt 4860
attgtctcat gagcggatac atatttgaat gtatttagaa aaataaaca ataggggttc 4920
cgcgcacatt tccccgaaa gtgccacctg acgtctaaga aaccattatt atcatgacat 4980
taacctataa aaataggcgt atcacgaggc cctttcgtct tcac 5024

```

```

<210> 49
<211> 51
<212> DNA

```

<213> Artificial

<220>

<223> Cloning site

<400> 49

atggcactta gtgggatccg catgcgagct cgggtaccccg ggggtggcag c 51

<210> 50

<211> 51

<212> DNA

<213> Artificial

<220>

<223> Cloning site

<400> 50

gctgccaccc ccggggtacc gagctcgcat gcggatccca ctaagtgcc a t 51

<210> 51

<211> 4700

<212> DNA

<213> Artificial

<220>

<223> Plasmid

<400> 51

cagggtggcac	ttttcgggga	aatgtg	gcgcg	gaacccctat	ttgtttat	ttttaa	atac	60
attcaa	atat	gtatcc	gctc	atgagaca	aat	aacctg	ata	120
aaagga	aagag	tatgag	tatt	caacattt	cc	gtgtcg	ccct	180
tttgcctt	cc	tgtttt	tgct	caccagaaa	cgctgg	tga		240
agttgg	gtgc	acgag	tgggt	tacatc	gaac	tggatct	caa	300
gttttc	gccc	cgaaga	acgt	tttcca	atga	tgagcact	ttt	360
cggtatt	atc	ccgtatt	gac	gccggg	caag	agcaact	cg	420
agaatga	ctt	ggttgag	tac	tcaccag	tca	cagaaa	agca	480
taagaga	aatt	atgcag	tgt	gccata	acca	tgagtga	taa	540
tgacaac	gat	cggagg	accg	aaggag	ctaa	ccgctttt	tt	600
taactcg	cct	tgatcg	ttgg	gaaccg	gagc	tgaatga	agc	660
acaccac	gat	gcctg	tagca	atggca	acaa	cgttgc	caa	720
ttactct	tagc	ttcccg	gcaa	caatta	atag	actggat	gga	780
cacttct	g	ctcggc	cctt	ccggct	ggct	ggtttat	tgc	840
agcgtg	gggtc	tcgcg	gtatc	attgcag	cac	tggggcc	aga	900
tagttat	ct	cacgac	gggg	agtcagg	caa	ctatggat	ga	960
agatagg	tgc	ctcact	gatt	aagcatt	ggt	aactgtc	aga	1020
tttagat	tga	tttaaa	actt	cattttt	aat	ttaaaagg	at	1080
ataatct	cat	gaccaa	aatc	ccttaac	gtg	agttttc	gtt	1140
tagaaa	agat	caaagg	atct	tcttgag	atc	ctttttt	ct	1200
aaacaaaa	aaaa	accacc	gcta	ccagcg	gtg	tttgttt	g	1260

Sense 27353-510-061-SequenceListing.txt

tttttccgaa	ggtaactggc	ttcagcagag	cgcagatacc	aaatactgtc	cttctagtgt	1320
agccgtagtt	aggccaccac	ttcaagaact	ctgtagcacc	gcctacatac	ctcgctctgc	1380
taatcctggt	accagtggct	gctgccagt	gcgataagtc	gtgtcttacc	gggttggact	1440
caagacgata	gttaccggat	aaggcgcagc	ggtcgggctg	aacggggggt	tcgtgcacac	1500
agcccagctt	ggagcgaacg	acctacaccg	aactgagata	cctacagcgt	gagcattgag	1560
aaagcgccac	gcttcccga	gggagaaagg	cggacaggta	tccggtaagc	ggcagggctg	1620
gaacaggaga	gcgcacgagg	gagcttccag	ggggaaacgc	ctggtatctt	tatagtcctg	1680
tcgggtttcg	ccacctctga	cttgagcgtc	gattttttgtg	atgctcgtca	ggggggcgga	1740
gcctatggaa	aaacgccagc	aacgcggcct	ttttacgggt	cctggccttt	tgctggcctt	1800
ttgctcacat	gttctttcct	gcgttatccc	ctgattctgt	ggataaccgt	attaccgcct	1860
ttgagtgagc	tgataccgct	cgccgcagcc	gaacgaccga	gcgcagcgag	tcagtgagcg	1920
aggaagccca	ggacccaacg	ctgcccga	ttccgacacc	atcgaatggg	gcaaaacctt	1980
tcgcggtatg	gcatgatagc	gcccggga	gagtcaattc	aggggtggga	atgtgaaacc	2040
agtaacgtta	tacgatgtcg	cagagtatgc	cggtgtctct	tatcagaccg	tttcccgcgt	2100
ggtgaaccag	gccagccacg	tttctgcga	aacgcgggaa	aaagtggaa	cggcgatggc	2160
ggagctgaat	tacattccca	accgcgtggc	acaacaactg	gcgggcaaac	agtcgttgct	2220
gattggcggt	gccacctcca	gtctggccct	gcacgcgccg	tcgcaaattg	tcgcggcgat	2280
taaatctcgc	gccgatcaac	tgggtgccag	cgtgggtggg	tcgatggtag	aacgaagcgg	2340
cgtcgaagcc	tgtaaagcgg	cggtgcacaa	tcttctcgcg	caacgcgtca	gtgggctgat	2400
cattaactat	ccgctggatg	accaggatgc	cattgctgtg	gaagctgcct	gcactaatgt	2460
tccggcggtta	tttcttgatg	tctctgacca	gacacccatc	aacagtatta	tttctccca	2520
tgaagacggg	acgcgactgg	gcgtggagca	tctggctgca	ttgggtcacc	agcaaatacg	2580
gctgttagcg	ggcccattaa	gttctgtctc	ggcgcgctcg	cgtctggctg	gctggcataa	2640
atatctcact	cgcaatcaaa	ttcagccgat	agcggaaacg	gaaggcgact	ggagtgccat	2700
gtccggtttt	caacaaacca	tgcaaagtct	gaatgagggc	atcgttccca	ctgcgatgct	2760
ggttgccaac	gatcagatgg	cgctgggccc	aatgcgcgcc	attaccgagt	ccgggctgcg	2820
cgttggtgcg	gatattctcg	tagtgggata	cgacgatacc	gaagacagct	catgttatat	2880
cccgccgtta	accaccatca	aacaggattt	tcgcctgctg	gggcaaacca	gcgtggaccg	2940
cttgctgcaa	ctctctcagg	gccaggcggg	gaagggcaat	cagctgttgc	ccgtctcact	3000
ggtgaaaaga	aaaaccaccc	tggcgcccaa	tacgcaaacc	gcctctcccc	gcgcgttggc	3060
cgattcatta	atgcagctgg	cacgacagg	ttcccgaact	gaaagcgggc	agtgagcgca	3120
acgcaattaa	tgtgagttag	ctcactcatt	aggcacaatt	ctcatgtttg	acagcttatc	3180
atcgactgca	cgggtgcacca	atgcttctgg	cgtcaggcag	ccatcggaag	ctgtgggatg	3240
gctgtgcagg	tcgtaaatca	ctgcataatt	cgtgtcgcct	aaggcgact	cccgttctgg	3300
ataatgtttt	ttgcgcccac	atcataacgg	ttctggcaaa	tattctgaaa	tgagctgttg	3360

acaattaatc atcggctcgt ataatgtgtg gaattgtgag cggataacaa ttccacacag	3420
gaaacacata tgaacgactt tcatcgcgat acgtgggcgg aagtggattt ggacgccatt	3480
tacgacaatg tggcgaattt gcgccgtttg ctgccggacg acacgcacat tatggcggtc	3540
gtgaaggcga acgcctatgg acatggggat gtgcagggtg caaggacagc gctcgaagcg	3600
ggggcctccc gcctggcggt tgcctttttg gatgaggcgc tcgctttaag ggaaaaagga	3660
atcgaagcgc cgattctagt tctcggggct tcccgtccag ctgatgcggc gctggccgcc	3720
cagcagcgca ttgccctgac cgtgttccgc tccgactggt tggaagaagc gtccgccctt	3780
tacagcggcc ctattcctat tcatttccat ttgaaaatgg acaccggcat gggacggctt	3840
ggagtgaag acgaggagga gacgaaacga atcgcagcgc tgattgagcg ccatccgcat	3900
tttgtgcttg aaggggcgta cacgcatttt gcgactgcgg atgaggtgaa caccgattat	3960
ttttcctatc agtatacccg ttttttgac atgctcgaat ggctgccgtc gcgcccgcg	4020
ctcgtccatt gcgccaacag cgcagcgtcg ctccgtttcc ctgaccggac gttcaatatg	4080
gtccgcttcg gcattgccat gtatgggctt gccccgtcgc ccggcatcaa gccgctgctg	4140
ccgtatccat taaaagaagc attttcgctc catagccgcc tcgtacacgt caaaaaactg	4200
caaccaggcg aaaagggtgag ctatggtgcg acgtacactg cgcagacgga ggagtggatc	4260
gggacgattc cgatcggcta tgcggacggc tggctccgcc gcctgcagca ctttcatgtc	4320
cttgttgacg gacaaaaggc gccgattgtc ggccgcattt gcatggacca gtgcatgatc	4380
cgctgcctg ggccgctgcc ggtcggcacg aagggtgacac tgattggtcg ccagggggac	4440
gaggtaattt ccattgatga tgtcgcctcg catttgaaa cgatcaacta cgaagtgcct	4500
tgcacgatca gctatcgagt gccccgtatt tttttccgcc ataagcgtat aatggaagtg	4560
agaaacgcca ttggccgcgg ggaaagcagt gcacatcacc atcaccatca ctaaaagctt	4620
ggatccgaat tcagccccgc taatgagcgg gctttttttt gaacaaaatt agcttggctg	4680
ttttggcgga tgagagaaga	4700

<210> 52
 <211> 1512
 <212> DNA
 <213> Homo sapiens

<400> 52	
atggctctca tcccagactt ggccatggaa acctggcttc tcctggctgt cagcctggtg	60
ctcctctatc tatatggaac ccattcacat ggacttttta agaagcttgg aattccaggg	120
cccacacctc tgcctttttt gggaaatatt ttgtcctacc ataagggtct ttgtatgttt	180
gacatggaat gtcataaaaa gtatggaaaa gtgtggggct tttatgatgg tcaacagcct	240
gtgctggcta tcacagatcc tgacatgatc aaaacagtgc tagtgaaaga atgttattct	300
gtcttcacaa accggaggcc ttttgggtcca gtgggattta tgaaaagtgc catctctata	360
gctgaggatg aagaatggaa gagattacga tcattgctgt ctccaacctt caccagtgga	420
aaactcaagg agatgggtccc tatcattgcc cagtatggag atgtgttggg gagaaatctg	480
aggcggggaag cagagacagg caagcctgtc accttgaaag acgtctttgg ggcctacagc	540

```

atggatgtga tcactagcac atcatttggga gtgaacatcg actctctcaa caatccacaa 600
gacccctttg tggaaaacac caagaagctt ttaagatttg attttttggga tccattcttt 660
ctctcaataa cagtctttcc attcctcatc ccaattcttg aagtattaaa tatctgtgtg 720
tttccaagag aagttacaaa ttttttaaga aaatctgtaa aaaggatgaa agaaagtcgc 780
ctcgaagata cacaaaagca ccgagtggat ttccttcagc tgatgattga ctctcagaat 840
tcaaaagaaa ctgagtccca caaagctctg tccgatctgg agctcgtggc ccaatcaatt 900
atctttatctt ttgctggcta tgaaaccacg agcagtgttc tctccttcat tatgtatgaa 960
ctggccactc accctgatgt ccagcagaaa ctgcaggagg aaattgatgc agttttaccc 1020
aataaggcac caccaccta tgatactgtg ctacagatgg agtatcttga catggtggtg 1080
aatgaaacgc tcagattatt cccaattgct atgagacttg agaggggtctg caaaaaagat 1140
gttgagatca atgggatgtt cattcccaa ggggtggtgg tgatgattcc aagctatgct 1200
cttcaccgtg acccaaagta ctggacagag cctgagaagt tcctccctga aagattcagc 1260
aagaagaaca aggacaacat agatccttac atatacacac cttttggaag tggacccaga 1320
aactgcattg gcatgagggt tgctctcatg aacatgaaac ttgctctaata cagagtcctt 1380
cagaacttct ctttcaaacc ttgtaaagaa acacagatcc ccctgaaatt aagcttagga 1440
ggacttcttc aaccagaaaa acccgttgtt ctaaagggtg agtcaaggga tggcaccgta 1500
agtggagcct ga 1512

```

<210> 53
 <211> 503
 <212> PRT
 <213> Homo sapiens

<400> 53

Met Ala Leu Ile Pro Asp Leu Ala Met Glu Thr Trp Leu Leu Leu Ala
 1 5 10 15

Val Ser Leu Val Leu Leu Tyr Leu Tyr Gly Thr His Ser His Gly Leu
 20 25 30

Phe Lys Lys Leu Gly Ile Pro Gly Pro Thr Pro Leu Pro Phe Leu Gly
 35 40 45

Asn Ile Leu Ser Tyr His Lys Gly Phe Cys Met Phe Asp Met Glu Cys
 50 55 60

His Lys Lys Tyr Gly Lys Val Trp Gly Phe Tyr Asp Gly Gln Gln Pro
 65 70 75 80

Val Leu Ala Ile Thr Asp Pro Asp Met Ile Lys Thr Val Leu Val Lys
 85 90 95

Glu Cys Tyr Ser Val Phe Thr Asn Arg Arg Pro Phe Gly Pro Val Gly
 100 105 110

Phe Met Lys Ser Ala Ile Ser Ile Ala Glu Asp Glu Glu Trp Lys Arg

Leu Arg Ser Leu Leu Ser Pro Thr Phe Thr Ser Gly Lys Leu Lys Glu
 130 135 140
 Met Val Pro Ile Ile Ala Gln Tyr Gly Asp Val Leu Val Arg Asn Leu
 145 150 155 160
 Arg Arg Glu Ala Glu Thr Gly Lys Pro Val Thr Leu Lys Asp Val Phe
 165 170 175
 Gly Ala Tyr Ser Met Asp Val Ile Thr Ser Thr Ser Phe Gly Val Asn
 180 185 190
 Ile Asp Ser Leu Asn Asn Pro Gln Asp Pro Phe Val Glu Asn Thr Lys
 195 200 205
 Lys Leu Leu Arg Phe Asp Phe Leu Asp Pro Phe Phe Leu Ser Ile Thr
 210 215 220
 Val Phe Pro Phe Leu Ile Pro Ile Leu Glu Val Leu Asn Ile Cys Val
 225 230 235 240
 Phe Pro Arg Glu Val Thr Asn Phe Leu Arg Lys Ser Val Lys Arg Met
 245 250 255
 Lys Glu Ser Arg Leu Glu Asp Thr Gln Lys His Arg Val Asp Phe Leu
 260 265 270
 Gln Leu Met Ile Asp Ser Gln Asn Ser Lys Glu Thr Glu Ser His Lys
 275 280 285
 Ala Leu Ser Asp Leu Glu Leu Val Ala Gln Ser Ile Ile Phe Ile Phe
 290 295 300
 Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu Ser Phe Ile Met Tyr Glu
 305 310 315 320
 Leu Ala Thr His Pro Asp Val Gln Gln Lys Leu Gln Glu Glu Ile Asp
 325 330 335
 Ala Val Leu Pro Asn Lys Ala Pro Pro Thr Tyr Asp Thr Val Leu Gln
 340 345 350
 Met Glu Tyr Leu Asp Met Val Val Asn Glu Thr Leu Arg Leu Phe Pro
 355 360 365
 Ile Ala Met Arg Leu Glu Arg Val Cys Lys Lys Asp Val Glu Ile Asn
 370 375 380
 Gly Met Phe Ile Pro Lys Gly Val Val Val Met Ile Pro Ser Tyr Ala
 385 390 395 400

Leu His Arg Asp Pro Lys Tyr Trp Thr Glu Pro Glu Lys Phe Leu Pro
 405 410 415

Glu Arg Phe Ser Lys Lys Asn Lys Asp Asn Ile Asp Pro Tyr Ile Tyr
 420 425 430

Thr Pro Phe Gly Ser Gly Pro Arg Asn Cys Ile Gly Met Arg Phe Ala
 435 440 445

Leu Met Asn Met Lys Leu Ala Leu Ile Arg Val Leu Gln Asn Phe Ser
 450 455 460

Phe Lys Pro Cys Lys Glu Thr Gln Ile Pro Leu Lys Leu Ser Leu Gly
 465 470 475 480

Gly Leu Leu Gln Pro Glu Lys Pro Val Val Leu Lys Val Glu Ser Arg
 485 490 495

Asp Gly Thr Val Ser Gly Ala
 500

<210> 54
 <211> 1835
 <212> DNA
 <213> Homo sapiens

<400> 54
 atggattctc ttgtggtcct tgtgctctgt ctctcatggt tgcttctcct ttcactctgg 60
 agacagagct ctgggagagg aaaactccct cctggcccca ctctctccc agtgattgga 120
 aatatacctac agataggtat taaggacatc agcaaatacct taaccaatct ctcaaaggctc 180
 tatggcccgg tgttcactct gtattttggc ctgaaacca tagtggtgct gcatggatat 240
 gaagcagtga aggaagccct gattgatctt ggagaggagt tttctggaag aggcattttc 300
 ccactggctg aaagagctaa cagaggattt ggaattgttt tcagcaatgg aaagaaatgg 360
 aaggagatcc ggcgtttctc cctcatgacg ctgcggaatt ttgggatggg gaagaggagc 420
 attgaggacc gtgttcaaga ggaagccgc tgccttgttg aggagttgag aaaaaccaag 480
 gcctcaccct gtgatccac tttcatcctg ggctgtgctc cctgcaatgt gatctgctcc 540
 attattttcc ataaacgttt tgattataaa gatcagcaat ttcttaactt aatggaaaag 600
 ttgaatgaaa acatcaagat tttagcagc ccctggatcc agatctgcaa taatttttct 660
 cctatcattg attacttccc gggaactcac aacaaattac ttaaaaacgt tgcttttatg 720
 aaaagttata ttttgaaaa agtaaaagaa caccaagaat caatggacat gaacaaccct 780
 caggacttta ttgattgctt cctgatgaaa atggagaagg aaaagcaca ccaaccatct 840
 gaatttacta ttgaaagctt ggaaaacact gcagttgact tgtttgagc tgggacagag 900
 acgacaagca caaccctgag atatgctctc cttctcctgc tgaagcacc agaggtcaca 960
 gctaaagtcc aggaagagat tgaacgtgtg attggcagaa accggagccc ctgcatgcaa 1020
 gacaggagcc acatgcccta cacagatgct gtggtgcacg aggtccagag atacattgac 1080
 cttctcccca ccagcctgcc ccatgcagtg acctgtgaca ttaaattcag aaactatctc 1140

Sense 27353-510-061-SequenceListing.txt

```

attcccaagg gcacaaccat attaatttcc ctgacttctg tgctacatga caacaaagaa 1200
tttcccaacc cagagatggt tgacctcat cactttctgg atgaagggtg caattttaag 1260
aaaagtaaatt acttcatgcc tttctcagca ggaaaacgga tttgtgtggg agaagccctg 1320
gccggcatgg agctgttttt attcctgacc tccattttac agaactttaa cctgaaatct 1380
ctggttgacc caaagaacct tgacaccact ccagttgtca atggatttgc ctctgtgccg 1440
cccttctacc agctgtgctt cattcctgtc tgaagaagag cagatggcct ggctgctgct 1500
gtgcagtccc tgcagctctc tttcctctgg ggcattatcc atctttgcac tatctgtaat 1560
gccttttctc acctgtcatc tcacattttc ccttccctga agatctagtg aacattcgac 1620
ctccattacg gagagtttcc tatgtttcac tgtgcaata tatctgctat tctccatact 1680
ctgtaacagt tgcattgact gtcacataat gtcatactt atctaata gtagtattaat 1740
atgttattat taaatagaga aatatgattt gtgtattata attcaaaggc atttcttttc 1800
tgcattgatct aaataaaaag cattattatt tgctg 1835

```

```

<210> 55
<211> 490
<212> PRT
<213> Homo sapiens

```

```
<400> 55
```

```

Met Asp Ser Leu Val Val Leu Val Leu Cys Leu Ser Cys Leu Leu Leu
1 5 10 15

```

```

Leu Ser Leu Trp Arg Gln Ser Ser Gly Arg Gly Lys Leu Pro Pro Gly
20 25 30

```

```

Pro Thr Pro Leu Pro Val Ile Gly Asn Ile Leu Gln Ile Gly Ile Lys
35 40 45

```

```

Asp Ile Ser Lys Ser Leu Thr Asn Leu Ser Lys Val Tyr Gly Pro Val
50 55 60

```

```

Phe Thr Leu Tyr Phe Gly Leu Lys Pro Ile Val Val Leu His Gly Tyr
65 70 75 80

```

```

Glu Ala Val Lys Glu Ala Leu Ile Asp Leu Gly Glu Glu Phe Ser Gly
85 90 95

```

```

Arg Gly Ile Phe Pro Leu Ala Glu Arg Ala Asn Arg Gly Phe Gly Ile
100 105 110

```

```

Val Phe Ser Asn Gly Lys Lys Trp Lys Glu Ile Arg Arg Phe Ser Leu
115 120 125

```

```

Met Thr Leu Arg Asn Phe Gly Met Gly Lys Arg Ser Ile Glu Asp Arg
130 135 140

```

```

Val Gln Glu Glu Ala Arg Cys Leu Val Glu Glu Leu Arg Lys Thr Lys
145 150 155 160

```

Ala Ser Pro Cys Asp 165 Pro Thr Phe Ile Leu 170 Gly Cys Ala Pro Cys 175 Asn
 Val Ile Cys Ser 180 Ile Ile Phe His Lys 185 Arg Phe Asp Tyr Lys 190 Asp Gln
 Gln Phe Leu 195 Asn Leu Met Glu Lys 200 Leu Asn Glu Asn Ile 205 Lys Ile Leu
 Ser Ser 210 Pro Trp Ile Gln Ile 215 Cys Asn Asn Phe Ser 220 Pro Ile Ile Asp
 Tyr Phe Pro Gly Thr His 230 Asn Lys Leu Leu Lys 235 Asn Val Ala Phe Met 240
 Lys Ser Tyr Ile Leu 245 Glu Lys Val Lys Glu 250 His Gln Glu Ser Met 255 Asp
 Met Asn Asn Pro 260 Gln Asp Phe Ile Asp 265 Cys Phe Leu Met Lys 270 Met Glu
 Lys Glu Lys 275 His Asn Gln Pro Ser 280 Glu Phe Thr Ile Glu 285 Ser Leu Glu
 Asn Thr Ala Val Asp Leu Phe 295 Gly Ala Gly Thr Glu 300 Thr Thr Ser Thr
 Thr Leu Arg Tyr Ala Leu 310 Leu Leu Leu Leu Lys 315 His Pro Glu Val Thr 320
 Ala Lys Val Gln Glu 325 Glu Ile Glu Arg Val 330 Ile Gly Arg Asn Arg 335 Ser
 Pro Cys Met Gln 340 Asp Arg Ser His Met 345 Pro Tyr Thr Asp Ala 350 Val Val
 His Glu Val 355 Gln Arg Tyr Ile Asp 360 Leu Leu Pro Thr Ser 365 Leu Pro His
 Ala Val Thr Cys Asp Ile Lys 375 Phe Arg Asn Tyr Leu 380 Ile Pro Lys Gly
 Thr Thr Ile Leu Ile Ser 390 Leu Thr Ser Val Leu 395 His Asp Asn Lys Glu 400
 Phe Pro Asn Pro Glu 405 Met Phe Asp Pro His 410 His Phe Leu Asp Glu 415 Gly
 Gly Asn Phe Lys 420 Lys Ser Lys Tyr Phe 425 Met Pro Phe Ser Ala 430 Gly Lys
 Arg Ile Cys Val Gly Glu Ala Leu Ala Gly Met Glu Leu Phe Leu Phe

435

Leu Thr Ser Ile Leu Gln Asn Phe Asn Leu Lys Ser Leu Val Asp Pro
450 455 460

Lys Asn Leu Asp Thr Thr Pro Val Val Asn Gly Phe Ala Ser Val Pro
465 470 475 480

Pro Phe Tyr Gln Leu Cys Phe Ile Pro Val
485 490

<210> 56
<211> 44
<212> PRT
<213> Homo sapiens

<400> 56

Arg Arg Ala Asp Gly Leu Ala Ala Ala Val Gln Ser Leu Gln Leu Ser
1 5 10 15

Phe Leu Trp Gly Ile Ile His Leu Cys Thr Ile Cys Asn Ala Phe Ser
20 25 30

His Leu Ser Ser His Ile Phe Pro Ser Leu Lys Ile
35 40

<210> 57
<211> 24
<212> PRT
<213> Homo sapiens

<400> 57

Thr Phe Asp Leu His Tyr Gly Glu Phe Pro Met Phe His Cys Ala Asn
1 5 10 15

Ile Ser Ala Ile Leu His Thr Leu
20

<210> 58
<211> 10
<212> PRT
<213> Homo sapiens

<400> 58

Leu Ser His Asn Ala His Thr Tyr Leu Met
1 5 10

<210> 59
<211> 11
<212> PRT
<213> Homo sapiens

<400> 59

Ser Ile Asn Met Leu Leu Leu Asn Arg Glu Ile
1 5 10

<210> 60
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 60

Phe Val Tyr Tyr Asn Ser Lys Ala Phe Leu Phe Cys Met Ile
 1 5 10

<210> 61
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 61

Ile Lys Ser Ile Ile Ile Cys
 1 5

<210> 62
 <211> 1494
 <212> DNA
 <213> Homo sapiens

<400> 62
 atggggctag aagcactggt gccctggcc gtgatagtgg ccatcttcct gctcctggtg 60
 gacctgatgc accggcgcca acgctgggct gcacgctacc caccaggccc cctgccactg 120
 cccgggctgg gcaacctgct gcatgtggac ttccagaaca caccatactg cttcgaccag 180
 ttgcggcgcc gcttcgggga cgtgttcagc ctgcagctgg cctggacgcc ggtggtcgtg 240
 ctcaatgggc tggcgccgt gcgcgaggcg ctggtgacct acggcgagga caccgccgac 300
 cgcccgccctg tgcccatcac ccagatcctg ggtttcgggc cgcgttccca aggggtgttc 360
 ctggcgcgct atgggcccgc gtggcgcgag cagaggcgct tctccgtgtc caccttgcgc 420
 aacttgggccc tgggcaagaa gtcgctggag cagtgggtga ccgaggaggc cgctgcctt 480
 tgtgccgcct tcgccaacca ctccggacgc ccctttcgcc ccaacggtct cttggacaaa 540
 gccgtgagca acgtgatcgc ctccctcacc tgcgggcgcc gcttcgagta cgacgaccct 600
 cgcttcctca ggctgctgga cctagctcag gagggactga aggaggagtc gggctttctg 660
 cgcgagggtgc tgaatgctgt ccccgctctc ctgcatatcc cagcgctggc tggcaaggtc 720
 ctacgcttcc aaaaggcttt cctgaccag ctggatgagc tgctaactga gcacaggatg 780
 acctgggacc cagcccagcc ccccgagac ctgactgagg ccttcctggc agagatggag 840
 aaggccaagg ggaaccctga gagcagcttc aatgatgaga acctgcgcat agtgggtggct 900
 gacctgttct ctgccgggat ggtgaccacc tcgaccacgc tggcctgggg cctcctgctc 960
 atgatcctac atccggatgt gcagcgccgt gtccaacagg agatcgacga cgtgataggg 1020
 caggtgcggc gaccagagat gggtgaccag gctcacatgc cctacaccac tgccgtgatt 1080
 catgagggtgc agcgctttgg ggacatcgtc cccctgggta tgacccatat gacatcccgt 1140
 gacatcgaag tacagggtt ccgcatccct aagggaacga cactcatcac caacctgtca 1200
 tcggtgctga aggatgaggc cgtctgggag aagcccttcc gcttccaccc cgaacacttc 1260
 ctggatgccc agggccactt tgtgaagccg gaggccttcc tgcctttctc agcaggccgc 1320

cgtgcatgcc tcggggagacc cctggcccg atggagctct tcctcttctt cacctccctg 1380
 ctgcagcact tcagcttctc ggtgcccact ggacagcccc ggcccagcca ccatggtgtc 1440
 tttgctttcc tggtagagccc atccccctat gagctttgtg ctgtgccccg ctag 1494

<210> 63
 <211> 497
 <212> PRT
 <213> Homo sapiens

<400> 63

Met Gly Leu Glu Ala Leu Val Pro Leu Ala Val Ile Val Ala Ile Phe
 1 5 10 15

Leu Leu Leu Val Asp Leu Met His Arg Arg Gln Arg Trp Ala Ala Arg
 20 25 30

Tyr Pro Pro Gly Pro Leu Pro Leu Pro Gly Leu Gly Asn Leu Leu His
 35 40 45

Val Asp Phe Gln Asn Thr Pro Tyr Cys Phe Asp Gln Leu Arg Arg Arg
 50 55 60

Phe Gly Asp Val Phe Ser Leu Gln Leu Ala Trp Thr Pro Val Val Val
 65 70 75 80

Leu Asn Gly Leu Ala Ala Val Arg Glu Ala Leu Val Thr His Gly Glu
 85 90 95

Asp Thr Ala Asp Arg Pro Pro Val Pro Ile Thr Gln Ile Leu Gly Phe
 100 105 110

Gly Pro Arg Ser Gln Gly Val Phe Leu Ala Arg Tyr Gly Pro Ala Trp
 115 120 125

Arg Glu Gln Arg Arg Phe Ser Val Ser Thr Leu Arg Asn Leu Gly Leu
 130 135 140

Gly Lys Lys Ser Leu Glu Gln Trp Val Thr Glu Glu Ala Ala Cys Leu
 145 150 155 160

Cys Ala Ala Phe Ala Asn His Ser Gly Arg Pro Phe Arg Pro Asn Gly
 165 170 175

Leu Leu Asp Lys Ala Val Ser Asn Val Ile Ala Ser Leu Thr Cys Gly
 180 185 190

Arg Arg Phe Glu Tyr Asp Asp Pro Arg Phe Leu Arg Leu Leu Asp Leu
 195 200 205

Ala Gln Glu Gly Leu Lys Glu Glu Ser Gly Phe Leu Arg Glu Val Leu
 210 215 220

Asn Ala Val Pro Val Leu Leu His Ile Pro Ala Leu Ala Gly Lys Val
 225 230 235 240
 Leu Arg Phe Gln Lys Ala Phe Leu Thr Gln Leu Asp Glu Leu Leu Thr
 245 250 255
 Glu His Arg Met Thr Trp Asp Pro Ala Gln Pro Pro Arg Asp Leu Thr
 260 265 270
 Glu Ala Phe Leu Ala Glu Met Glu Lys Ala Lys Gly Asn Pro Glu Ser
 275 280 285
 Ser Phe Asn Asp Glu Asn Leu Arg Ile Val Val Ala Asp Leu Phe Ser
 290 295 300
 Ala Gly Met Val Thr Thr Ser Thr Thr Leu Ala Trp Gly Leu Leu Leu
 305 310 315 320
 Met Ile Leu His Pro Asp Val Gln Arg Arg Val Gln Gln Glu Ile Asp
 325 330 335
 Asp Val Ile Gly Gln Val Arg Arg Pro Glu Met Gly Asp Gln Ala His
 340 345 350
 Met Pro Tyr Thr Thr Ala Val Ile His Glu Val Gln Arg Phe Gly Asp
 355 360 365
 Ile Val Pro Leu Gly Met Thr His Met Thr Ser Arg Asp Ile Glu Val
 370 375 380
 Gln Gly Phe Arg Ile Pro Lys Gly Thr Thr Leu Ile Thr Asn Leu Ser
 385 390 395 400
 Ser Val Leu Lys Asp Glu Ala Val Trp Glu Lys Pro Phe Arg Phe His
 405 410 415
 Pro Glu His Phe Leu Asp Ala Gln Gly His Phe Val Lys Pro Glu Ala
 420 425 430
 Phe Leu Pro Phe Ser Ala Gly Arg Arg Ala Cys Leu Gly Glu Pro Leu
 435 440 445
 Ala Arg Met Glu Leu Phe Leu Phe Phe Thr Ser Leu Leu Gln His Phe
 450 455 460
 Ser Phe Ser Val Pro Thr Gly Gln Pro Arg Pro Ser His His Gly Val
 465 470 475 480
 Phe Ala Phe Leu Val Ser Pro Ser Pro Tyr Glu Leu Cys Ala Val Pro
 485 490 495

Arg